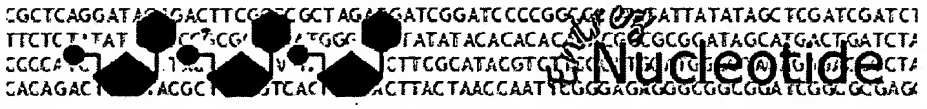

☐ **1:** M69043. Homo sapiens MAD-...[gi:187290] Links

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LOCUS       HUMMAD3A                1550 bp    mRNA    linear   PRI 07-MAR-1994
DEFINITION  Homo sapiens MAD-3 mRNA encoding IkB-like activity, complete cds.
ACCESSION   M69043
VERSION     M69043.1  GI:187290
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 1550)
  AUTHORS   Haskill,S., Beg,A.A., Tompkins,S.M., Morris,J.S., Yurochko,A.D.,
            Sampson-Johannes,A., Mondal,K., Ralph,P. and Baldwin,A.S. Jr.
  TITLE     Characterization of an immediate-early gene induced in adherent
            monocytes that encodes I kappa B-like activity
  JOURNAL   Cell 65 (7), 1281-1289 (1991)
  MEDLINE   91292530
   PUBMED   1829648
COMMENT     Original source text: Homo sapiens cDNA to mRNA.
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      121 ggagtgggcc atggagggcc cccgcgacgg gctgaagaag gagcggctac tggacgaccg
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NCBI

Sequence Revision History

Revision history for "M69043"			
GI	**Version**	**Update Date**	**Status**
187290	1	Mar 7 1994 17:00	Live
187290	1	Jul 26 1993 19:32	Dead
187290	1	Apr 27 1993 12:57	Dead

Accession M69043 was first seen at NCBI on Apr 27 1993 12:57

1: Proc Natl Acad Sci U S A. 1993 Mar 15;90(6):2532-6. Related Articles, Li

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Mutual regulation of the transcriptional activator NF-kappa B and its inhibitor, I kappa B-alpha.

Brown K, Park S, Kanno T, Franzoso G, Siebenlist U.

Laboratory of Immunoregulation, National Institute of Allergy and Infectiou: Diseases, National Institutes of Health, Bethesda, MD 20892.

The NK-kappa B transcription factor complex is sequestered in the cytoplasr by the inhibitory protein I kappa B-alpha (MAD-3). Various cellular stimuli relieve this inhibition by mechanisms largely unknown, leading to NF-kappa nuclear localization and transactivation of its target genes. It is demonstrated here with human T lymphocytes and monocytes that different stimuli, includ tumor necrosis factor alpha and phorbol 12-myristate 13-acetate, cause rapid degradation of I kappa B-alpha, with concomitant activation of NF-kappa B, followed by a dramatic increase in I kappa B-alpha mRNA and protein synthesis. Transfection studies reveal that the I kappa B-alpha mRNA and th encoded protein are potently induced by NF-kappa B and by homodimers of p65 and of c-Rel. We propose a model in which NF-kappa B and I kappa B-alpha mutually regulate each other in a cycle: saturating amounts of the inhibitory I kappa B-alpha protein are destroyed upon stimulation, allowing rapid activation of NF-kappa B. Subsequently, I kappa B-alpha mRNA and protein levels are quickly induced by the activated NF-kappa B. This resurgence of I kappa B-alpha protein acts to restore an equilibrium in which NF-kappa B is again inhibited.

PMID: 8460169 [PubMed - indexed for MEDLINE]